



EMERSON QUIET KOOL CORPORATION

400 Woodbine Avenue
Woodbridge, New Jersey 07095

Telephone: (201) 381-7000

MAY 8 1985

*Thompson
Duane Marine*

May 6, 1985

Ms. Margaret Thompson, Law Clerk
United States Environmental Protection Agency
Waste and Toxic Substances Branch
Office of Regional Counsel
Region II
26 Federal Plaza
New York, NY 10278

Dear Ms. Thompson:

I am forwarding to you as requested, a more detailed analysis of the ink sent to the Duane Marine facility for disposal.

In addition I am enclosing a description of the process.

Please advise if there is anything further I can provide.

Very truly yours,

EMERSON QUIET KOOL CORPORATION

IRWIN M. HERSH
Executive Vice President - Manufacturing

IMH/mew

cc: Mr. J. Dickens
Rudnick & Wolfe

335031





To: I.M. Hersh

Date: May 1, 1985

Subject: Printing Ink-Paper Bags

From: R. Matus

During the years 1978 and 1979 paper bags were manufactured for the Eureka Company. These bags were printed with ink supplied to Emerson Quiet Kool by Colora Printing Inks Inc.

The ink was delivered to EQK in 55 gallon drums. These drums contained the bulk supply used to fill the machine reservoir. The machine operator opened the drum and would take about 3 gallons of ink and mix it in the reservoir with an equal amount of water. The reservoir supply would be replenished as the day went on. At the end of the production day any of the ink-water mixture that was left in the reservoir was put into a 55 gallon container. This was approximately 1 gallon daily. After accumulating nine 55 gallon drums of this water-ink mixture Duane Marine Salvage was contacted to arrange legal disposal of the material. Subsequently, a method was devised to re-use the day end ink-water mixture the next day and no further accumulation occurred.

RM/cd

COLORA PRINTING INKS INC.



SPECIALISTS IN FLEXOGRAPHIC AND GRAVURE INKS

April 30, 1985

3401B Tremley Point Road
P.O. Box 4309
Linden, New Jersey 07036
TELEPHONE: (201) 862-1919
TELEGRAMS: COLORINKS, N.Y.

Emerson Quiet Kool
St. George & Woodbine Ave.
Woodbridge, N.J. 07095

Attn: Frank Wozniak

Reference: EPA Information Request

Dear Frank:

As per our phone conversation on Friday, April 26, I am sending you data sheets identifying the raw materials that are used in the inks we supplied to you in 1984.

As this information borders on revealing trade secrets, I would appreciate it if this information goes only to EPA or its official representative.

RED

Dimethyl Ethanolamine	1-3%
2-Butoxy Ethanol	5-10%
Pigment Red 200	15-20%
Resin 757	12-15%
Water	40-50%
Pigment White #6	5-10%

BLUE

Dimethyl Ethanolamine	1-3%
2-Butoxy Ethanol	5-10%
Pigment Black 7	3-5%
Pigment White #6	10-12%
Resin 757	12-15%
Victoria Blue B Basic Blue 26	8-10%
Water	40-50%

If I can be of further service, please don't hesitate to call.

Sincerely yours,

James W. Snyder
James W. Snyder
Vice President

Enc.
JWS:rh



Name	Dimethyl Ethanolamine	Synonyms and trade names	2-Dimethylaminoethanol
Chemical formula	Alkanolamine		
Formula	(CH ₃) ₂ NCH ₂ CH ₂ OH		

Summary of hazards

Principal hazards	Potent alkaline irritant: liquid contact causes skin and eye burns; gastrointestinal hemorrhage if swallowed; respiratory tract irritation and lung inflammation if exposed to high vapor concentrations.					
Flammability category (OSHA)	Flammable IA	IB	IC	Combustible X II	IIIA	IIIB <input type="checkbox"/> Nonflammable and not burnable
Photochemically reactive components	Olefinic or Cyclo-Olefinic	0 vol %	Toluene	0 vol %	Trichloroethylene	0 vol %
	Aromatic C8 and above (xEB)	0 vol %	Ethyl Benzene	0 vol %	Ketones (branched hydrocarbon struc)	0 vol %

Physical data

Boiling point at 760 mm	275 °F	135 °C	Vapor pressure at 68°F (20°C)	4.4 mm Hg
Melting (freezing) point at 760 mm	-78 °F	-59 °C	Vapor density at 60-90°F (15-32°C)	3.0 (air = 1)
Specific gravity at 39.2°F (4°C)	0.89	(H ₂ O = 1)	Evaporation rate	0.5 (BuAc = 1)
Solubility in water at 68°F (20°C)	∞	g/100 g H ₂ O	Volatile at 70°F (21°C)	100 vol %
Appearance	Colorless liquid		Odor	Mild ammoniacal

Fire and explosion hazard data

Flash point <input type="checkbox"/> closed <input checked="" type="checkbox"/> open cup	115 °F	82 °C	Flammable or explosive limits	Upper	13.4 vol %
Autoignition temperature	563 °F	295 °C		Lower	7.1 vol %
Firefighting hazards	Emits toxic fumes of nitrogen oxides.				

Health hazard data

Occupational exposure standard: USOS <input type="checkbox"/> air <input type="checkbox"/> skin (eight-hour time weighted average)		mg/M ³	ppm
Lethal dosage (* = principal route of absorption)	Oral LD 50 rat	2,340 mg/kg	Inhalation Ihl LC 50 rat *
	Percutaneous LD 50 rat	mg/kg	Skin Skn LD 50 rabbit 1,370 mg/kg
Toxic level (human)			
Skin and eye irritation	Liquid is very irritating to skin and eyes, causes eye burns.		
Relevant symptoms of exposure	Irritation of eye, nose and throat, inflammation of lungs.		
Effects of chronic exposure	No known reports of organic injury in animals or humans. **		

NOTE: See Data Supplement for properties common to Organic Solvents. Deviations or comments are indicated in the following space.

**Irritant properties of undiluted unneutralized compound are so great that prolonged exposure in any form would not be voluntarily tolerated. Salt forms have therapeutic interest as CNS stimulants. Materials to avoid: strong acids. Conditions contributing to hazardous polymerization: contamination with strong acids.

Other data

Solubility of water in solvent at 20°C	∞	g/100 g solvent	Solubility parameter
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Identity data for principal component

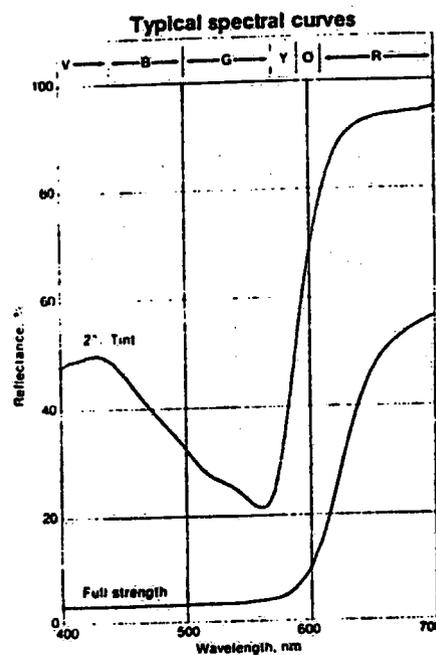
Generic name	C. I. Pigment Red 200			Structural formula			
Identification number	C. I. 15867						
Common name	Rubine Red (calcium)						
Chemical type	Organic	Inorganic	Data table 6				
Chemical class	Monoazo: Salt of 2-naphthol acid						
Chemical description	Diazotized 2-amino-5-chloro-4-ethylbenzenesulfonic acid coupled with 3-hydroxy-2-naphthoic acid and converted to the calcium salt			CAS Registry Number & CA Index Name	58067-05-3 2-Naphthalenecarboxylic acid, 4-[(4-chloro-5-ethyl-2-sulphophenyl)azo]-3-hydroxy-, calcium salt (1:1)		
Color	Bright bluish red			Empirical formula (CAS)	C ₁₉ H ₁₅ ClN ₂ O ₆ S · Ca	M.W.	473

Regulatory data

Regulated constituents (molecular)	None	EPA Solid waste restrictions RCRA-40 CFR 261.24	NA	ppm @ pH 5	Additional regulatory concerns
Controlling OSHA Standard 8 hr l.w.a. 29 CFR 1910.1000	Nuisance dust 15 mg/m ³	EPA Priority pollutants CWA PL 95-217	NA		References to safety and health data
		EEC Label Directive 77/728/EEC	NA	%	

Commercial product data

Entries represent data compiled for dry powders without resination or other surface treatment. Data are intended solely as a general guide. See manufacturers' literature for properties of specific products.



Spectral curves are provided for qualitative color description only and are not to be interpreted as specifications.

Physical data

Specific gravity	1.71 - 1.75	(H ₂ O = 1)
Solid bulk density	14.2 - 14.5	lb/US gal
Melting point		°C
Particle shape		
Particle size, mean		micrometers
325-Mesh retention	0.1 max	% > 44µ
Surface area		m ² /g
pH	7.5 - 8.7	(10% slurry)
Hiding power	[] Opaque [] Semi-opaque [] Transparent	
Oil absorption	40	wt/100 wt

Fastness data*

Acid	Hydrochloric acid, 5%	A	Oxygenated solvents	Ethyl alcohol	A	
	Lactic acid, 5%			Ethyl acetate		
	Acetic acid, 2%	A		Diethylene glycol		
Alkali	Sodium hydroxide, 2%	A		Methyl ethyl ketone	S	
	Sodium carbonate, 5%	N		Lacquer solvent, DCMA		
Water	20°C	S	Other	DOP, 20°C	N	
	100°C				175°C	
	Process sterilization				Oils, fats & greases	N
Hydrocarbons	Mineral spirits	S		Paraffin wax, 80°C	N	
	Xylene	A		Soap sandwich	A	

Color permanency*

Indoor (Fadeometer)	Change at 72-80 hrs	S' (tint)	A (tint)	Max. tol.	20 - 70 ^{FL} hrs (tint)	10 - 15 ^{FL} hrs (tint)
Outdoor (Florida 45°S)	Change at 12 months	(tint)	(tint)	Max. tol.	mos (tint)	mos (tint)
Baking (Tin plate)	Change at 150°C (300°F)	N (15)	S (30)	Max. tol.	160 °C (10')	135 - 150 °C (30')

* Key to fastness and permanency ratings: N—no bleed or discoloration; S—slight; A—appreciable; '—ratings vary by source. Key to permanency failures: F—fades; D—darkens; L—loses gloss; B—turns bluer; G—turns grayer or greener; Y—turns yellow; Z—bronzes.

Other data

Excellent brightness, color purity and tinting strength. Homologous in structure to calcium Red 2G (P. Red 52:1) but somewhat bluer.

Applications data

Major usage	Liquid and oil-based printing inks. Interior paints. Plastics.	Major weaknesses	Poor acid, alkali, solvent and soap resistance. Poor lightfastness. Moderate baking stability.
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Available physical forms

Number of manufacturers who supply the following grades						Total companies List is given in Appendix
Dry full strength		Dry reduced		Wet		
No surface treatment	Resinated	Special surface treatment	Lake (Al)	Extended	Presscake	
2						2

The information given on this Data Sheet was compiled from sources considered reliable; however, users are advised to test and analyze the pigment for specific applications.

Name	Ethylene Glycol n-Butyl Ether	Synonyms and trade names	2-Butoxy Ethanol
Chemical family	Glycol Ether		Butyl Cellosolve®
Formula	CH ₃ (CH ₂) ₃ OCH ₂ CH ₂ OH	M.W.	118
			Butyl Oxitol® Dowanol® EB

Summary of hazards

Principal hazards	Possible cumulative poison: prolonged exposure to mists or heated vapors, or sustained extensive skin contact may cause liver and kidney injury.						
Flammability category (OSHA)	Flammable	IA	IB	IC	Combustible	II X IIIA III B	<input type="checkbox"/> Nonflammable and not burnable
Photochemically reactive components	Olefinic or Cyclo-Olefinic	() vol %		Toluene	() vol %	Trichloroethylene	0 vol %
	Aromatic CB and above (xEB)	0 vol %		Ethyl Benzene	() vol %	Ketones (branched hydrocarbon struc)	0 vol %

Physical data

Boiling point at 760 mm	340 °F	171 °C	Vapor pressure at 68°F (20°C)	0.6 mm Hg
Melting (freezing) point at 760 mm	-94 °F	-70 °C	Vapor density at 60-90°F (15-32°C)	4.1 (air = 1)
Specific gravity at 39.2°F (4°C)	0.90 (H ₂ O = 1)		Evaporation rate	0.07 (BuAc = 1)
Solubility in water at 68°F (20°C)	∞ g/100 g H ₂ O		Volatile at 70°F (21°C)	100 vol %
Appearance	Colorless liquid		Odor	Mild ether-like

Fire and explosion hazard data

Flash point (X closed open cup)	155 °F	68 °C	Flammable or explosive limits	Upper	10.6 vol %
Autoignition temperature	472 °F	244 °C		Lower	1.1 vol %
Firefighting hazards					

Health hazard data

Occupational exposure standard: USOS (eight-hour time weighted average)	air	X skin	240 mg/M ³	50 ppm
Lethal dosage (* = principal route of absorption)	Oral LD 50 rat	1,480 mg/kg	Inhalation Ihl LC 50 rat	700 ^{7hr} ppm
	Percutaneous Ipr LD 50 rat	500 mg/kg	Skin Skn LD 50 rabbit	* 490 mg/kg
Toxic level (human)	100 ppm: nose, throat and eye irritation. 300 ppm: estimated minimum for narcosis and organic injury.			
Skin and eye irritation	Liquid irritates skin, causes marked pain and transient injury to eye.			
Relevant symptoms of exposure	Nasal and eye irritation, headache, nausea, dizziness.			
Effects of chronic exposure	Hematuria (blood in urine) but diethylene glycol butyl ether was also present. Injury to blood cells, kidneys, liver and lungs in animals.			

NOTE: See Data Supplement for properties common to Organic Solvents. Deviations or comments are indicated in the following space.

Although animal experiments indicate product to be the most toxic of the glycol ethers, human experience has been remarkably free of serious complications. Potential hazard is minimal at room temperatures due to low volatility. Protective respiratory devices are recommended when material is handled hot or misted. Conditions contributing to instability: Peroxides may form during storage.

Other data

Solubility of water in solvent at 20°C	∞ g/100 g solvent	Solubility parameter	9.9
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This information was compiled from sources considered reliable; however, no warranties are expressed or implied.



INTERNATIONAL DYESTUFFS CORPORATION

MAIN OFFICE
50 PAGE ROAD • P.O. BOX 2169 • CLIFTON, N. J. 07015

9861 3 0 11

January 21, 1985

Colora Printing Ink Co.
3401 Tremley Point Road
Linden, New Jersey 07036

ATTN: JIM SNYDER:

Dear Jim:

As per your conversation with Larry Boss last week per-
taining to the CAS numbers of the products you purchase from
I.D.C. The following list should answer your questions.

<u>Product</u>	<u>CAS Numbers</u>	<u>On NJ Hazardous list</u>
Elcozine Victoria Pure Blue B0	2390-60-5	NO
Elcozine Victoria Blue B Conc	2580-56-5	NO
Elcozine Rhodamine 6GDN	989-38-8	YES
Elcozine Methyl Violet 2B	8004-87-3	NO
Elcozine Magenta Powder	3248-91-7	NO
Elcozine Rhodamine B Extra	81-88-3	NO
Auramine OSS D/L	2465-27-2	YES

If you have further questions please call me.

Sincerely,

Lawrence J. Rosen
Vice President

LJR/d1

MATERIAL SAFETY DATA SHEET

BD-8

SECTION I

Manufacturer's Name INTERNATIONAL DYESTUFFS CORP Emergency Phone No. 201-778-0122
 Address (No., Street, City, State, Zip Code) 50 Page Road Clifton, New Jersey 07015
 Chemical Name and Synonyms _____ Trade Name and Synonyms _____
 Chemical Family Tri-Aryl Methane Dye stuff Formula VICTORIA BLUE B Conc
C.I. Basic Blue #26 C.I. 41045
 Information Furnished By: William Stein Mgr Tech Services Nov 1979
Name Title Date

SECTION II, HAZARDOUS INGREDIENTS

Paints, Preservatives & Solvents	%	TLV (Units)	Alloys and Metallic Coatings	%	TLV (Units)
Pigments			Base Metal		
Catalyst			Alloys		
Vehicle			Metallic Coatings		
Solvents			Filler Metal Plus		
Additives			Coating or Core Flux		
Others			Others		
Hazardous Mixtures of Other Liquids, Solids or Gases				%	TLV (Units)

not applicable

SECTION III, PHYSICAL DATA

Boiling Point (°F.)	Specific Gravity (H ₂ O=1)
Vapor Pressure (mm Hg.)	Percent Volatile
Vapor Density (Air=1)	By Volume (%)
Solubility in Water <u>about 3-5%</u>	Evaporation Rate
Appearance and Odor <u>Dark Blue Powder</u>	()

not applicable

SECTION IV, FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Flammable Limits	LeI	Uel
Extinguishing Media <u>Carbon Dioxide Extinguisher</u>			
Special Fire Fighting Procedures			
Unusual Fire and Explosion Hazards <u>NONE</u>			

SECTION V, HEALTH HAZARD DATA

no TLV has been established

Threshold Limit Value _____ none expected

Effects of Overexposure _____

Emergency and First Aid Procedures _____ none required, ordinary measures of

_____ personal hygiene should be adequate.

SECTION VI, REACTIVITY DATA

Stability	Unstable		Conditions to Avoid
	Stable	X	

Incompatibility (Materials to Avoid) _____

Hazardous Decomposition Products _____

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	none

SECTION VII, SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled _____ sweep up and place in awaste disposal container.

flush area with water.

Waste Disposal Method _____ incinerate or bury in a landfill.

SECTION VIII, SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type) _____ If there is excessive dust, wear approved respirator

Ventilation	Local Exhaust		Special	none
		preferable		
	Mechanical (General)		Other	none
		acceptable		

Protective Gloves _____ not required

Eye Protection _____ safety goggles

Other Protective Equipment _____ none

SECTION IX, SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing _____ normal good warehousing procedures

Other Precautions _____

Data Sheet 4-182

Identify data for principal component

Generic name	C. I. Pigment White 6		Formula & composition	TiO ₂
Colour index	C. I. 77891			
Constitution number			TiO ₂ 80 - 99.91 (Al, Si, or Zn)O 0 - 20	
Common names	Titanium Dioxide, Anatase, Rutile			
Chemical type	() Organic (x) Inorganic	Data table	20n	
Chemical class	Opaque White			
Chemical description	Titanium dioxide produced from ferrous ilmenite by the sulfate process or from rutile ore by the chloride process. Anatase and rutile differ in crystal structure. May be surface treated with certain oxides.		CAS Registry Number & CA Index Name	13463-67-7 Titanium oxide (TiO ₂)
Hue	White		Empirical formula (CAS)	O ₂ Ti
			M.W.	80

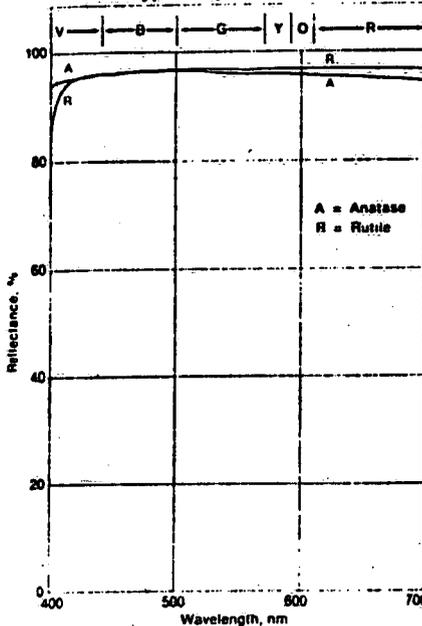
Regulatory data

Regulated constituents (molecular)	Titanium dioxide 80-100 % <i>See Preface and Table A2</i>	EPA Solid waste restrictions RCRA-40 CFR 261.24	NA	ppm @ pH 5	Additional regulatory concerns	CWA: Contact supplier for zinc content, if any. FDA permits coating and other uses.
Controlling OSHA Standard 8 hr l.w.a. 29 CFR 1910.1000	Nuisance dust 15 mg/m ³	EPA Priority pollutants CWA PL 95-217	NA			
		EEC Label Directive 77/28/EEC	NA	%		

Commercial product data

Entries represent data compiled for dry powders without resination or other surface treatment. Data are intended solely as a general guide. See manufacturers' literature for properties of specific products.

Typical spectral curves



Spectral curves are provided for qualitative color description only and are not to be interpreted as specifications.

Physical data

Specific gravity	Ana 3.8 - 4.1 Rut 3.9 - 4.2 (H ₂ O=1)
Solid bulk density	Ana 32 - 34 Rut 33 - 35 lb/US gal
Melting point	1800 °C
Particle shape	Cubic, spheric, some rodlike (rutile more closely packed)
Particle size, mean	Ana 0.3 Rut 0.2 - 0.3 micrometers
325-Mesh retention	0.1 - 0.2 % > 44µ
Surface area	m ² /g
pH	6.5 - 10.5 (10% slurry)
Hiding power	(x) Opaque () Semi-opaque () Transparent
Oil absorption	Ana 18 - 30 Rut 16 - 48 wt/100 wt

Fastness data*

Acid	Hydrochloric acid, 5%	N	Oxygenated solvents	Ethyl alcohol	N
	Lactic acid, 3%	N		Ethyl acetate	N
Alkali	Acetic acid, 2%	N	Other	Diethylene glycol	N
	Sodium hydroxide, 2%	N		Methyl ethyl ketone	N
Water	Sodium carbonate, 5%	N	DOP	20°C	N
				75°C	N
Hydrocarbons	Mineral spirits	N	Oils, fats & greases		N
	Xylene	N		Paraffin wax, 80°C	N
			Soap sandwich	N	

Color permanency*

Indoor (Fadeometer)	Change at 72-80 hrs	N (full)	N (faint)	Max. tol.	250 hrs (full)	250 hrs (faint)
Outdoor (Florida 45°S)	Change at 12 months	N (full)	N (faint)	Max. tol.	> 12 mos (full)	12 mos (faint)
Baking (Tin plate)	Change at 150°C (300 F)	N (15')	N (30')	Max. tol.	250 C (10')	250

* Key to fastness and permanency ratings: N—no bleed or discoloration; S—slight; A—appreciable. —ratings vary by source. Key to permanency failures: F—fades; D—darkens; L—loses gloss; B—turns bluer; G—turns grayer or greener; Y—turns yellow; Z—bronzes.

Other data

Refractive index 2.76 (rutile), 2.55 (anatase). Hardness 6-7½ moh (rutile), 5-6 (anatase). Most important opaque white pigment in current use. Inert, soluble only in hot conc. sulfuric and hydrofluoric acids. Specifications are given in ASTM D-476. Available in numerous grades with improved chalk resistance, dispersibility or other properties.

Applications data

Major usage	Paints (55%), Paper (20%), Printing inks. Many other industrial applications. Artists' colors.	Major weaknesses	Anatase: Lesser opacity. Rutile: Abrasiveness, Yellowish undertone.
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Available physical forms

Number of manufacturers who supply the following grades						Total companies listed given in Appendix
Anatase (Type I)			Rutile (Types II, III, IV)			
Uncoated	Coated	Slurries	Uncoated	Coated	Slurries	

Identify data for principal component

Colour Index	Generic name C. I. Pigment Black 7	Formula & composition C	Carbon 90 - 99% Volatiles 1 - 10
Constitution number	C. I. 77266		
Common names	Carbon Black, Furnace Black, Channel Black		
Chemical type	() Organic (X) Inorganic Data table 18b		
Chemical class	Carbon black	CAS Registry Number 1333-86-4* Carbon black	Some special grades are only 40% carbon
Chemical description	Almost pure carbon produced by burning highly aromatic oil or natural gas. Surface content of oxygen, hydrogen, sulfur and hydrocarbons may be varied by after-treatments.		
Hue	Black	Empirical formula (CAS)	M.W. 12

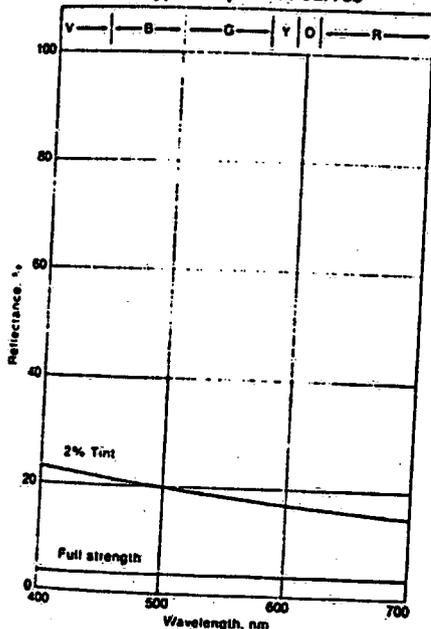
Regulatory data

Regulated constituents (molecular)	Carbon black 40-99% See Preface and Table A2	EPA Solid waste restrictions RCRA:40 CFR 261.24	NA	ppm (± pH 5)	Additional regulatory concerns	FDA permits use of channel black in coatings.
Controlling OSHA Standard 8 hr T.W.A. 29 CFR 1910.1000	Carbon black Pigment 3.5 3.5-9 mg/m³	EPA Priority pollutants CWA PL 95-217	NA			
		EEC Label Directive 77/726/EEC	NA	%	References to safety and health data	Table B2, B5, B6, B8

Commercial product data

Entries represent data compiled for dry powders without resination or other surface treatment. Data are intended solely as a general guide. See manufacturers' literature for properties of specific products.

Typical spectral curves



Spectral curves are provided for qualitative color description only and are not to be interpreted as specifications.

Physical data

Specific gravity	1.80 - 1.85	H ₂ O = 1
Solid bulk density	15.0 - 15.4	lb/US gal
Melting point		°C
Particle shape	Spherical (amorphous)	
Particle size, mean	0.01 - 0.08	micrometers
325-Mesh retention	0.1	% > 44µ
Surface area	15 - 1600	m ² /g
pH	2.4 - 9.0	(10% slurry)
Hiding power	X Opaque	Semi-opaque, Transparent
Oil absorption	58 - 400	wt/100 wt

Fastness data*

Acid	Hydrochloric acid, 5%	N	Oxygenated solvents	Ethyl alcohol	N
	Lactic acid, 3%	N		Ethyl acetate	N
Alkali	Acetic acid, 2%	N	Other	Diphenyl glycol	N
	Sodium hydroxide, 2%	N		Methyl ethyl ketone	N
Water	Sodium carbonate, 5%	N	Lacquer solvent, DCMA		N
	20°C	N		DOP, 20°C	N
Hydrocarbons	Mineral spirits	N	175°C	N	
	Xylene	N	Oil, fats & greases	N	
			Paraffin wax, 80°C	N	
			Soap sandwich	N	

Color permanency*

Indoor (Fadeometer)	Change at 72-80 hrs	N (full)	N (tint)	Max. tol.	> 240 hrs (full)	> 240 hrs (tint)
Outdoor (Florida 45°S)	Change at 12 months	N (full)	N (tint)	Max. tol.	mos (full)	mos (tint)
Baking (Tin plate)	Change at 150°C (300°F)	N (15')	N (30')	Max. tol.	> 260 °C (10')	> 200 °C (30')

* Key to fastness and permanency ratings: N—no bleed or discoloration; S—slight; A—appreciable; —ratings vary by source. Key to permanency failures: F—fades; D—darkens; L—loses gloss; B—turns blue; G—turns gray or greener; Y—turns yellow; Z—bronzes.

Other data

Most important black pigment. Impervious to chemicals, light, weather and heat; excellent hiding power and UV absorption. Available in numerous grades differing in surface area (particle size and porosity), structure (chain or grape-like) and surface chemistry (volatile matter). Pelleted grades minimize dust during handling.

Applications data

Major usage	Rubber for automobile tires (65%). Automobile and appliance finishes. Printing inks. Maintenance paints. Plastics. Carbon paper. Artists' colors.	Major weaknesses	Smaller sizes: difficult to disperse; high drier demand, drier absorption, cure retardation; flotation and flooding in tints. Coarser grades: bronzing in aged films.
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Available physical forms

No surface treatment	Number of manufacturers who supply the following grades						Total companies List is given in Appendix
	Dry full strength		Dry reduced		Wet		
	Pelleted	Special surface treatment	Lake (Al)	Extended	Presscake	Flushes and dispersions	
4	4	8			6	14	

The information given on this Data Sheet was compiled from sources considered reliable; however, users are advised to test and analyze the pigment for specific applications.

SECTION I IDENTIFICATION OF PRODUCT

MANUFACTURER'S NAME Union Camp Corporation		EMERGENCY TELEPHONE NO. 912/236-8178
ADDRESS 1600 Valley Road, Wayne, New Jersey 07470		
TRADE NAME AND SYNONYMS Uni-Rez 757		
CHEMICAL NAME AND SYNONYMS Alcohol-soluble maleic-modified rosin ester		
CHEMICAL FAMILY Rosin-maleic resin	MOLECULAR FORMULA Not Applicable (N/A)	

SECTION II HAZARDOUS COMPONENTS OF MIXTURES

COMPONENT	%	THRESHOLD LIMIT VALUE (UNITS)	COMPONENT	%	THRESHOLD LIMIT VALUE (UNITS)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H ₂ O = 1)	1.20
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT VOLATILE BY VOLUME (%)	0
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (= 1)	N/A
SOLUBILITY IN WATER	Nil		

APPEARANCE AND ODOR

Pale amber solid with a low odor

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT 540°F COC	Fire Point 545°F	FLAMMABLE LIMITS (PERCENT BY VOLUME)	LOWER Unknown	UPPER
FIRE EXTINGUISHING MEDIA		OTHER		
<input checked="" type="checkbox"/> WATER FOG	<input checked="" type="checkbox"/> FOAM	<input type="checkbox"/> ALCOHOL FOAM	<input checked="" type="checkbox"/> CO ₂	<input checked="" type="checkbox"/> DRY CHEMICAL
SPECIAL FIRE-FIGHTING PROCEDURES				
None		NFPA Classification		
UNUSUAL FIRE AND EXPLOSION HAZARDS				
None		Fire	-	1
		Health	-	1
		Reactivity	-	0

"The information contained herein is based on data believed to be reliable, but is furnished without warranty or guaranty of any kind, and Union Camp Corporation disclaims any liability incurred from the use or reliance upon the same."

THRESHOLD LIMIT VALUE
Undetermined, but should be handled as a nuisance particulate - 10 mg/M³ (1)

EXPOSURE
Probably not toxic. Breathing heavy concentrations of dust should be avoided.
Respirators are indicated for prolonged contact with heavy dust concentrations.

EMERGENCY AND FIRST AID PROCEDURES
Thorough washing with soap and water. For eye irritation, flush eyes with clean water. Remove to clean air if respiratory distress occurs.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Thermal decomposition: carbon dioxide, carbon monoxide and other unidentified organic compounds.

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Uni-Rez 757 is classified as non-hazardous under DOT or RCRA regulations.

In a clean area, sweep up and package for future use.
In a contaminated area, mix with earth, sweep up and dispose of as stated below.

WASTE DISPOSAL METHOD
Incinerate or landfill according to local and state regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)
Resin dust protection: Dust Mask Type NIOSH TC-21C-159

VENTILATION	LOCAL EXHAUST		SPECIAL
	MECHANICAL (General)	to reduce dust	OTHER

PROTECTIVE GLOVES

EYE PROTECTION

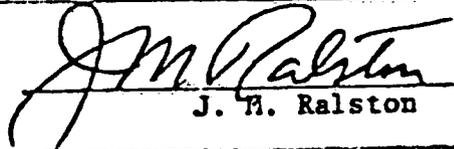
Safety Glasses or better

OTHER PROTECTION EQUIPMENT
Eye bath

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
None.

OTHER PRECAUTIONS
None


J. H. Ralston
Date 4/30/81

Recommended Uses

UNI-REZ 757 is widely used in alcohol and water flexographic inks, as well as gloss steam-set inks and label varnishes. UNI-REZ 757 is a modifier for nitrocellulose and shellac alcohol inks, and for water inks using shellac, casein and protein.

FDA Status

UNI-REZ 757 meets the requirements of the Code of Federal Regulations, Title 21, under the following sections:

- 175.105 Adhesives
- 175.300 Resinous and Polymeric Coatings
- 175.320 Resinous and Polymeric Coatings for Polyolefin Films
- 176.210 Defoaming Agents Used in the Manufacture of Paper and Paperboard
- 177.1210 Closures with Sealing Gaskets for Food Containers
- 177.2600 Rubber Articles Intended for Repeated Use

DOT Shipping Classification

Non-hazardous.

Shipping and Storage

Flaked form in multiwall bags, 50 lbs. net, and fiber drums. Solid resin drum packaging available.

Flaked forms of resin are prone to slow oxidation which may result in darkening and/or have an adverse effect on solubility after prolonged storage.